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Ahti Muhonen

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EXAMINER

DAILEY, THOMAS J

ART UNIT

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2152

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/690,656	<b>Applicant(s)</b> MUHONEN ET AL.	
	<b>Examiner</b> THOMAS J. DAILEY	<b>Art Unit</b> 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7,9 and 11-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9, and 11-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-7, 9, and 11-39 are pending.

### ***Response to Arguments***

2. Applicant's arguments, see Remarks, filed June 30, 2006, with respect to the rejection(s) of claim(s) 1-7, 9, and 11-39 under the prior art of record (specifically Aubault (US Pub. No. 2005/0056318)) have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Pecus et al (US Pat. 7,130,908).
3. Further, the Applicant's request for reconsideration of the finality of the rejection of the last Office action (dated 5/20/2008) is persuasive and, therefore, the finality of that action is withdrawn.

### ***Claim Objections***

4. Claims 2-7, 11, 13-18, 20-28, and 30-38 are objected to due to their use of indefinite articles. For example, claim 2 recites, "An apparatus according to claim 1..." (line 1) As claim 2 is a dependent claim it must recite, "The apparatus according to claim 1..." Similar corrections are required for the other dependent claims.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 6, 9, 11-13, 17-20, 24-29, 34, 36-39 are rejected under 35 U.S.C. 102(e) as being anticipated by Pecus et al (US Pat. 7,130,908), hereafter “Pecus.”

7. As to claim 12, Pecus discloses an apparatus comprising:

a processor operable within a terminal and configured to send, to a network entity located remote from the terminal, a status of at least one piece of content stored in memory of the terminal (column 22, lines 37-59, edge node (terminal) responds to requests from NOC (network entity) with information related to the status of content stored at the edge node), each piece of content being associated with parameters including a client expiration time and a deletion priority value (column 17, lines 35-41, files stored on the edge node have expiration times and deletion indications (deletion priority value)),

wherein the processor is configured to receive one or more instructions from the network entity based upon the status and the associated parameters to at least partially control storage of the at least one piece of content in memory of the terminal (column 16, lines 7-17, NOC (network entity) sends messages to the edge nodes (terminal) to delete files and data).

8. As to claims 1, 19, 29, and 39, they are rejected by the same rationale set forth in claim 12's rejection.
9. As to claim 6, Pecus discloses the invention substantially with regard to the parent claim 1, and further discloses the apparatus configured to store at least one piece of content, wherein the parameters further include a server expiration time (column 17, lines 15-20), and wherein the processor is configured to send at least one piece of content to the terminal (column 11, lines 40-50, NOC receives data and forwards it to the edge nodes).
10. As to claims 9, 11, 17, 26, and 36, Pecus discloses the processor is configured to associate each piece of content stored in the memory is associated with respective parameters (column 17, lines 20-28).
11. As to claims 13 and 20 Pecus discloses the processor is configured to receive one or more instructions to delete at least one piece of content based upon the

deletion priority value of each piece of content stored in memory, the processor being configured to receive the one or more instructions if, based on a determination if memory has sufficient storage capacity for at least one subsequent piece of content, the memory does not have sufficient storage capacity (column 17, lines 20-28, when it is determined the edge node does not have sufficient storage capacity, files with deletion indicators are deleted).

12. As to claims 18, 27, and 37, Pecus discloses the processor is configured set a deletion priority value for at least one piece of content (column 17, lines 20-28).

13. As to claims 24, Pecus discloses receiving at least one piece of content at the network entity; and sending at least one piece of content to the terminal such that the terminal receives, and thereafter stores, the at least one piece of content (column 11, lines 40-50, NOC receives data and forwards it to the edge nodes).

14. As to claims 25, Pecus discloses the parameters further includes include a server expiration time (Pecus, column 17, lines 15-20), and wherein the method further comprises:

monitoring the server expiration time of the at least one piece of content in memory of the network entity to determine if at least one piece of content has an exceeded server expiration time (Pecus, column 17, lines 15-20); and

if at least one piece of content has an exceeded server expiration time,  
deleting the at least one piece of content having an expired server expiration time  
(Pecus, column 17, lines 15-20).

15. As to claims 28 and 38, Pecus discloses associating each piece of content  
comprises associating each piece of content stored in memory of the terminal  
with respective parameters at the network entity (column 17, lines 20-28).

***Claim Rejections - 35 USC § 103***

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all  
obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 2-5, 7, 14-16, 21-23, 30-33, and 35 are rejected under 35 U.S.C. 103(a)  
as being unpatentable over Pecus in view of Deo et al (US Pat. 6,157,982),  
hereafter "Deo."

18. As to claims 2 and 30, Pecus discloses the invention substantially with regard to  
the parent claims 1 and 29, and further discloses determining if memory of the  
terminal has sufficient storage capacity for at least one subsequent piece of  
content, and if memory does not have sufficient storage capacity deleting at least

one piece of content based upon the deletion priority value of each piece of content stored in memory of the terminal (column 17, lines 1-10).

But, Pecus fails to disclose that a processor, located remotely from the terminal, carrying out the determining and sending steps. Rather, Pecus discloses these steps are carried out by the edge node (reading on the terminal), not the NOC (reading on the apparatus), see column 17, lines 1-10. However, Pecus does disclose that the NOC is functionally capable of sending instructions to the edge node, including delete instructions (column 22, lines 30-38).

Further, Deo discloses sending one or more instructions from a processor to a remote terminal based upon the status of the content stored in memory to at least partially control storage at least one piece of content in memory of the terminal, said instruction including determining available memory capacity of the terminal and if said memory does not have sufficient storage capacity deleting content (column 3, lines 8-24, a computer (apparatus) remotely issues memory transactions (instructions) to a information device (terminal), those instructions being based upon the content of the information device's memory, and the computer (apparatus) determines how much space is available as it has a map of the device memory in its own memory).



Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Pecus and Deo in order to decrease the processing burden of a terminal that has less processing power available than a computer it is networked with (Deo, column 2, line 65-column 3, line 4).

19. As to claim 3, Pecus and Deo disclose the invention substantially with regard to the parent claim 2, and further disclose determining at least one piece of content having an exceeded client expiration time (Pecus, column 17, lines 15-28), identifying a piece of content having a highest deletion priority value (Pecus, column 17, lines 15-28) from the at least one piece of content having an exceeded client expiration time, and send one or more instructions instructing the terminal to delete the identified piece of content (Pecus, column 17, lines 15-28).

20. As to claims 4, 23, and 33, Pecus and Deo disclose the invention substantially with regard to the parent claim 3, 22, 32, and further disclose the process is configured to repeatedly identify a piece of content, and send one or more instructions to instruct the terminal to delete the identified piece of content (Pecus, column 17, lines 15-28), until one of memory of the terminal has sufficient storage capacity for the at least one subsequent piece of content (Pecus, column 17, lines 15-28), or each piece of content having an exceeded

client expiration time has been identified and deleted (Pecus, column 17, lines 15-28).

21. As to claims 5 and 16, Pecus and Deo disclose the invention substantially with regard to the parent claims 4 and 15, and further disclose when memory of the terminal does not have sufficient storage capacity for at least one subsequent piece of content and each piece of content having an exceeded client expiration time has been identified and deleted (see claim 4 rejection), the processor is further configured to identify at least one piece of content having a highest deletion priority value from at least one piece of content remaining in memory of the terminal, and send one or more instructions instructing the terminal to delete the identified at least one piece of content (Pecus, column 17, lines 15-28).

22. As to claim 7, Pecus and Deo disclose the invention substantially with regard to the parent claim 6, and further disclose the processor is further configured to monitor the server expiration time of the at least one piece of content in memory of the apparatus to determine if at least one piece of content has an exceeded server expiration time (Pecus, column 17, lines 15-28), and if at least one piece of content has an exceeded server expiration time, delete the at least one piece of content having an expired server expiration time (Pecus, column 17, lines 15-28).

23. As to claims 14, 21, and 31, Pecus discloses the invention substantially with regard to the parent claims 1 and 29, and further discloses the processor is configured to send a status of the at least one piece of content and determining a plurality of pieces of content have an exceeded client expiration time, the processor configured to receive one or more instructions to delete a piece of content having a highest deletion priority value from the respective plurality of pieces of content (column 17, lines 1-10).

But, Pecus fails to disclose that a processor, located remotely from the terminal, carrying out the determining and sending steps. Rather, Pecus discloses these steps are carried out by the edge node (reading on the terminal), not the NOC (reading on the apparatus), see column 17, lines 1-10. However, Pecus does disclose that the NOC is functionally capable of sending instructions to the edge node, including delete instructions (column 22, lines 30-38), and receiving status of the content in memory of the edge node.

Further, Deo discloses sending one or more instructions from a processor to a remote terminal based upon the status of the content stored in memory to at least partially control storage at least one piece of content in memory of the terminal, said instruction including determining available memory capacity of the terminal and if said memory does not have sufficient storage capacity deleting content (column 3, lines 8-24, a computer (apparatus) remotely issues memory

transactions (instructions) to a information device (terminal), those instructions being based upon the content of the information device's memory, and the computer (apparatus) determines how much space is available as it has a map of the device memory in its own memory).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Pecus and Deo in order to decrease the processing burden of a terminal that has less processing power available than a computer it is networked with (Deo, column 2, line 65-column 3, line 4).

24. As to claims 15, 22, and 32, Pecus and Deo disclose the invention substantially with regard to the parent claims 14, 21, and 31, and further disclose when the network entity determines a plurality of pieces of content have an exceeded client expiration time, the processor is configured to repeatedly receive one or more instructions to delete a piece of content having a highest deletion priority value (Pecus, column 17, lines 15-28) from the respective plurality of pieces of content until one of memory of the terminal has sufficient storage capacity for the at least one subsequent piece of content, or each the respective plurality of pieces of content has been identified and deleted (Pecus, column 17, lines 15-28).

25. As to claims 34, Pecus and Deo disclose the invention substantially with regard to the parent claim 30, and further disclose receiving at least one piece of content at the network entity; and sending at least one piece of content to the terminal such that the terminal receives, and thereafter stores, the at least one piece of content (Pecus, column 11, lines 40-50, NOC receives data and forwards it to the edge nodes).

26. As to claims 35, Pecus and Deo disclose the invention substantially with regard to the parent claim 34, and further disclose the parameters further includes include a server expiration time (Pecus, column 17, lines 15-20), and wherein the method further comprises:

monitoring the server expiration time of the at least one piece of content in memory of the network entity to determine if at least one piece of content has an exceeded server expiration time (Pecus, column 17, lines 15-20); and

if at least one piece of content has an exceeded server expiration time, deleting the at least one piece of content having an expired server expiration time (Pecus, column 17, lines 15-20).

### ***Conclusion***

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Dailey whose telephone number is

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571-270-1246. The examiner can normally be reached on Monday thru Friday;  
9:00am - 5:00pm.

28. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

29. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. J. D./  
Examiner, Art Unit 2152

/Bunjob Jaroenchonwanit/  
Supervisory Patent Examiner, Art Unit 2152